

WHAT IS CLAIMED IS:

1. A vehicle rotary electric machine having a rectifier protection arrangement, said protection arrangement including a positive conductor member that has a higher normal electrode potential than hydrogen, a ground potential conductor member and an insulation member for insulating said positive conductor member, wherein

a sacrificing metal member that has a lower normal electrode potential than said positive potential conductor member is disposed between said positive conductor member and said insulation member, and

said sacrificing metal member has a higher electric resistance than said positive potential conductor member if oxidized.

2. The rotary electric machine as claimed in claim 1, wherein
said sacrificing metal member are soluble as metal ions in said conductive liquid AB
even after an oxidized layer of said sacrificing metal member is formed on the surface thereof
if the surface of said oxidized layer is covered with conductive liquid.

3. The rotary electric machine as claimed in claim 1, wherein in
said sacrificing metal member covers portions other than electric connection surface
of said positive conductor member.

4. The rotary electric machine as claimed in claim 1, wherein
said positive conductor member comprises a positive cooling fin including positive
rectifier elements mounted thereon,
said ground potential conductor member comprises a negative cooling fin including
negative rectifiers mounted thereon,
said insulation member comprises a spacer having a hole that maintains a space
between said two fins, and
said sacrificing metal member comprises a flanged member disposed between said
spacer and one of said fins, thereby forming a rectifier of said vehicle AC generator to be
fastened to a frame of said vehicle AC generator by a fastening member piercing said spacer.

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5. The rotary electric machine as claimed in claim 1, wherein
said positive conductor member comprises an output terminal bolt protruding from a
cover of said rectifier unit fixed thereto,
said ground potential conductor member comprises one of a cover and a frame of said
vehicle AC generator to which said cover is fixed,
said insulation member comprises a resinous spacer having a hole through which said
output terminal bolt extends,
said spacer is fixed to said cover,
said sacrificing metal member has a flange disposed between said spacer and said
output terminal bolt, and
said sacrificing metal member and said insulation member are fastened to each other
when a cable is fastened to said output terminal bolt.

6. The rotary electric machine as claimed in claim 1, wherein said sacrificing
metal member has a projection at a portion in contact with said positive conductor member.